IN THE CLAIMS:

Claims 1-15 (Canceled)

Claim 16 (Previously presented): A method for protecting a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp of the patient or the skin of the animal against chemotherapy-induced alopecia, comprising administering an effective heat dose to the scalp of the patient or the skin of the animal sufficiently prior to the administration of a chemotherapeutic drug.

Claim 17 (Previously presented): The method of claim 16, wherein the effective heat dose is a dose equal or greater to that required to cause a detectable increase in the concentration of a stress protein selected from the group consisting of Hsp90, Hsp70, Hsp25-27 and P-glycoprotein in cells of hair follicles at the time of administration of a chemotherapeutic drug.

Claim 18 (Previously presented): The method of claim 17, wherein the heat dose is administered between 2 and 24 hours ahead of the administration of the chemotherapeutic drug.

Claim 19 (Previously presented): The method of claim 17, wherein the heat dose is administered between 6 and 12 hours ahead of the administration of the chemotherapeutic drug.

Claim 20 (Previously presented): The method of claims 16-19, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

Claims 21-22 (Canceled)

Claim 23 (New): The method of claim 16, wherein the heat dose is administered between 2 and 24 hours ahead of the administration of the chemotherapeutic drug.

Claim 24 (New): The method of claim 16, wherein the heat dose is administered between 6 and 12 hours ahead of the administration of the chemotherapeutic drug.

Claim 25 (New): The method of claims 23 or 24, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.